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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/724,284
Filing Date: November 26, 2003
Appellant(s): MUKHERJEE ET AL.

Christopher P Kosh
Reg. No. 42,760
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 3, 2009 appealing from the Office action mailed April 3, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

7133925 Mukherjee et al. 11-2006

Mukherjee, Debargha et al, "Proposals for End-to-end Digital Item Adaption Using Structured Scalable Meta-formats (SSM), ISO/IEC JTC1/SC29/WG11, Shanghai, Oct. 2002, pg 7-10, 17-21.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 11-19, 33-34, and 37-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra (5953506) in view of Mukherjee et al. (Proposals for end-to-end Digital Item Adaptation using Structured Scalable Meta-Formats(SSM)) (Located in IDS filed March 8, 2004).

Regarding claims 11, 33, and 34, Kalra teaches a machine-implemented method, comprising:

receiving a scalable encoded bitstream comprising scalable encoded media data and values of non-media-type-specific scalability attributes corresponding to different adaption points of the scalable encoded media data (Column 18, lines 47 – 63);

obtaining receiving attributes for a destination of an outbound version of the scalable encoded bistream, wherein ones of the receiving attributes defined explicit constraints on the outbound version of the scalable encoded bitstream (Col. 15, line 45 – Col. 16, line 20);

determining values of adaptation measure from respective evaluations based on the values of the attribute variables (Col. 15, lines 1 – 14);

ascertaining a set of one or more candidate ones of the adaptation points of based on imposition of the constraints on the determined values the adaptation measures (Col. 16, lines 49 – 58);

selecting an adaptation point from the set of candidate adaption without regard to the scalable encoded media data, (Column 15, lines 51 – 54; Column 16, lines 20 – 24; lines 37-42; lines 53 – 58); and

transcoding the scalable bitstream in accordance with the selected adaptation point to produce the outbound version of the scalable encoded bitstream (Column 16, line 49 – Column 17, lines 8; Column 3, line 66 – Column 4, line 6).

Kalra does not explicitly indicate that the constraints are determined based on functions.

Mukherjee teaches that transcoders should scale media based on metadata descriptions and outbound constraints received on a per-media-stream bases, wherein the transcoder performs no actual determination about the actual contents of the bitstream format (Page 7-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 12, Kalra teaches the method of claim 11, wherein the determining comprises determining the value of at least one of the adaptation measures based at least in part on a multivariate function defined by a respective one of the

receiving attributes and comprising a linear combination of products of univariate functions of ones of the scalability attribute variables (Column 17, lines 15 – 55).

Regarding claim 13, Kalra teaches the method of claim 12, wherein the ascertaining comprises comparing the at least one adaptation measure to at least one constraint function defined by a respective one of the receiving attributes (Column 16, lines 53 - 61).

Regarding claim 14, Kalra teaches the method of claim 11, wherein the ascertaining comprises comparing ones of the adaptation measures to ones of the receiving attributes limit constraints ascertaining (Column 16, lines 37 – 42; lines 53 - 61).

Regarding claim 15, Kalra teaches the method of claim 11, wherein the receiving attributes specified comprise optimization constraints ascertaining (Column 17, lines 15 – 55).

Regarding claim 16, Kalra teaches the method of claim 13, wherein the products comprise product terms and the determining comprises evaluating the multivariate function based on ones of the receiving attributes specifying at least one of:

a number of product terms in the linear combination; a number of elements in each product term; attribute codes for attributes in each product term; function codes for the univariate functions of the attribute values; and multipliers for the linear combination (Column 17, lines 15 – 55).

Regarding claim 17, Kalra teaches the method of claim 14, wherein the selecting comprises comparing ones of the adaptation measures to ones of the limit

constraints specifying for at least one of one of the adaptation measures at least one of a maximum values and a minimum values supportable by the receiving destination (Column 15, lines 51 – 65).

Regarding claim 18, Kalra teaches the method of claim 15, wherein the selecting comprises selecting the adaptation point in accordance with at least one of the optimization constraints specifying at least one of a maximization and a minimization of a respective one of the adaptation measures (Column 16, lines 2 – 17).

Regarding claim 19, Kalra teaches the method of claim 11, wherein the selecting comprises determining at least one of the adaptation measures based at least in part on an evaluation of a stack function comprising operations, and variables corresponding to ones of the scalability attributes (Column 17, lines 15 – 55).

Regarding claim 37, Kalra teaches the method of claim 11.

Kalra does not explicitly indicate wherein the scalable encoded bitstream additionally comprises description metadata specifying a hierarchical model of the bitstream, and the transcoding further comprises adapting the description metadata to represent the structure of the outbound version of the scalable encoded bitstream.

Mukherjee teaches wherein the scalable encoded bitstream additionally comprises description metadata specifying a hierarchical model of the bitstream, and the transcoding further comprises adapting the description metadata to represent the structure of the outbound version of the scalable encoded bitstream (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 38, Kalra teaches the method of claim 11.

Kalra does not explicitly indicate wherein the scalable encoded bitstream specifies combination variables in terms of respective ordered lists of ones of numeric constants, variables, arguments, and operators; and further comprising evaluating each of the combination variables, wherein the evaluating comprising pushing the respective ordered list onto a respective expression stack.

Mukherjee teaches wherein the scalable encoded bitstream specifies combination variables in terms of respective ordered lists of ones of numeric constants, variables, arguments, and operators; and further comprising evaluating each of the combination variables, wherein the evaluating comprising pushing the respective ordered list onto a respective expression stack (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 39, Kalra teaches the method of claim 38.

Kalra does not explicitly indicate wherein the pushing comprises pushing each constant into the respective expression stack, and the pushing of each constant comprises pushing a real numeric element corresponding to the constant into the respective expression stack.

Mukherjee teaches wherein the pushing comprises pushing each constant into the respective expression stack, and the pushing of each constant comprises pushing a real numeric element corresponding to the constant into the respective expression stack (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 40, Kalra teaches the method of claim 38.

Kalra does not explicitly indicate wherein the pushing comprises pushing each variable into the respective expression stack, and the pushing of each variable comprises determining a numeric value of the variable for a set of adaptation points and pushing the determining numeric value into the respective expression stack.

Mukherjee wherein the pushing comprises pushing each variable into the respective expression stack, and the pushing of each variable comprises determining a numeric value of the variable for a set of adaptation points and pushing the determining numeric value into the respective expression stack (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 41, Kalra teaches the method of claim 38.

Kalra does not explicitly indicate wherein the pushing comprises pushing one or more unary operators into the respective expression stack, and in response to pushing

each unary operator into the respective expression stack, popping the unary operator and a successive top numeric stack element out of the respective expression stack, determining a result from the popped unary operator and numeric stack element, and pushing the result into the respective expression stack.

Mukherjee teaches indicate wherein the pushing comprises pushing one or more unary operators into the respective expression stack, and in response to pushing each unary operator into the respective expression stack, popping the unary operator and a successive top numeric stack element out of the respective expression stack, determining a result from the popped unary operator and numeric stack element, and pushing the result into the respective expression stack (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 42, Kalra teaches the method of claim 38.

Kalra teaches wherein the pushing comprises pushing one or more binary operators in the respective expression stack, and in response to pushing each binary operator into the respective expression stack, popping the binary operator and two successive top numeric stack elements out of the respective expression stack, determining a result from the popped binary operator and the two numeric stack elements, and pushing the result into the respective expression stack.

Mukherjee teaches wherein the pushing comprises pushing one or more binary operators in the respective expression stack, and in response to pushing each binary

operator into the respective expression stack, popping the binary operator and two successive top numeric stack elements out of the respective expression stack, determining a result from the popped binary operator and the two numeric stack elements, and pushing the result into the respective expression stack (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 43, Kalra teaches the method of claim 38.

Kalra teaches further comprising calling each of the combination variables specifying a number of arguments, and in response to each calling of a respective one of the combination variables, serially popping the specified number of top elements from the respective expression stack, and determining a value of the combination variable from the popped elements.

Mukherjee teaches a method comprising calling each of the combination variables specifying a number of arguments, and in response to each calling of a respective one of the combination variables, serially popping the specified number of top elements from the respective expression stack, and determining a value of the combination variable from the popped elements (Page 17 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the constraints be programmed by the media stream creator to allow a wide variety of stream formats to be processed by the transcoders.

Regarding claim 44, Kaltra teaches the method of claim 11, wherein tile receiving comprises receiving the scalable encoded bitstream from at least one remote network node, the obtaining comprises receiving the receiving attributes from at least one remote network node, and the scalable encoded bitstream and the receiving attributes are received from different from respective network nodes (Col. 15, line 45 – Col. 16, line 20, the attributes are received from the client).

(10) Response to Argument

A. *The appellant argues that claims 11-18, 33, 34, 37, and 44 are entitled to the priority date of the CIP application, now patent 7,133,925. See Appeal Brief, filed 9-3-09, pg 9. The priority date of patent '925, July 15, 2002, would pre-date the NPL reference Mukherjee, thus overcoming the §103(a) rejection. See id. The appellant goes on to map claim language to the '925 issued patent on pages 9-21 of the appeal brief. It is important to note that the appellant is not relying on, nor arguing the earlier priority date for claims 19 and 38-43. See id. at 22-23.*

The examiner disagrees:

The claim must be fully supported under §112 by the '925 disclosure to receive the earlier effective filing date. *See* MPEP §706.02(VI). The courts have described the essential question to be addressed in a description requirement issue in a variety of ways. An objective standard for determining compliance with the written description

requirement is, "does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed." In re Gosteli, 872 F.2d 1008, 1012 (Fed. Cir. 1989). Under Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991), to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed. The test for sufficiency of support in a parent application is whether the disclosure of the application relied upon "reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter." Ralston Purina Co. v. Far-Mar-Co., Inc., 772 F.2d 1570, 1575 (Fed. Cir. 1985) (quoting In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983)). *See* MPEP §2163.03.

Regarding claim 11, the appellant has relied upon Fig. 6 (ref. no. 61); Fig. 7 (ref. no. 71); col. 10, line 44 to col. 12, line 6, abstract; and col. 3, lines 1-41 for each limitation to show evidence of its §112 support. *See id*. at 9-10. Upon considering the cited portions of the '925 patent and rest of the disclosure, the examiner has failed to find full support for the claim language of claim 11. More particularly, the concepts of "defining different adaptation points", "ascertaining a set of one or more candidate ones of the adaptation points," or "selecting an adaptation point from the set of candidate adaptation points without regard to the scalable encoded media data" are not fully supported by the '925 patent.

The '925 patent teaches that the optimized scaling of the media is selected based on an attempt to find the maximum or minimum of attribute measures. *See* Col.

11, lines 43 – 51; *see also* Col 12, lines 43 – 51. The '925 patent further teaches that sub-sets of the bit-stream are either selected or dropped. *See* Col. 12, lines 38 - 42. But neither of these disclosures disclose a set of discreet adaptation points being chosen as possibilities of the adaptation point of the scalable bitstream, and selecting one adaptation point out of the set of possibilities.

Because the disclosure in the '925 patent fails to define the selection of adaptation points from a set of points, that disclosure fails to reasonably show that the claimed invention was in possession of the claimed invention from claim 11 at the time of filing the '925 patent. Since there is no clear support for the claimed invention in the '925 patent, the claim is not entitled to the earlier effective filing date and the Mukherjee is considered prior art.

Claims 12-18, 33, 34, 37, and 44 each contain similar limitations to those of claim 11 and are unsupported under the same rationale.

B1. The appellant argues that the combination of Kalra and Mukherjee does not teach an evaluation of a stack function as claimed in claim 19. See Appeal Brief, pg 22.

The examiner disagrees:

Regarding claim 19, the claim recites the limitation evaluation of a stack function comprising operators, and variables corresponding to ones of the scalability attributes. *See* Appeal Brief pg 26-27. The examiner has interpreted this limitation as defining a "stack function" as a function including operators and variables corresponding to ones of

the scalability attributes. Kalra teaches a system for scaling bitstream media which includes computing functions corresponding to operators and variables based on the attributes of the receiving station. *See* Col. 17, lines 10 – 64.

If a more narrow interpretation of a stack function is argued more closely described in the specification, Mukherjee teaches using a stack to push and pull operators and variables. *See* pg 20-21. The combination of Kalra and Mukherjee to teach the idea of using a stack to push and pull operators and variables was mapped and explained in the rejection to claim 43.

B2. The appellant argues that the combination of Kalra and Mukherjee does not teach "wherein the scalable encoded bitstream specifies combination variables in terms of respective ordered lists of ones of numeric constants, variables, arguments, and operators; and further comprising evaluating each of the combination variables, wherein the evaluating comprising pushing the respective ordered list onto a respective expression stack." See Appeal Brief pg 22-23. More particularly, that the combination between the two references would not be obvious or result in an invention recited in the claim. See id.

The examiner disagrees:

Regarding claim 38, Kalra teaches a system for using functions and variables to determine the appropriate scaling of an incoming bitstream. *See* col. 4, lines 14 – 32; *see also* col. 17, lines 10 - 64. Kalra does not explicitly indicate that the scaling is

computed in the way described as recited in claim 38. Mukherjee teaches a system for allowing a wide variety and customable scaling of the type of scaling described in Kalra. *See* pg 4-5. As part of Mukherjee's teaching of is the ability of that scaling to be implemented media type independent. *See* pg 7. Mukherjee teaches that the computation of the encoding can be performed based on functionality as described in the claim limitations in claim 38. *See id*. at 17-21. Using a definable computation system as described in Mukherjee in the form of an expression stack with constants, variables, arguments, and operators would replace the defined algorithms described in Kalra which would allow the creators of the streams to defined their own scaling algorithms to be implemented to encode the stream. *See id*. at 4-7.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/KEVIN BATES/

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